

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Socioeconomic Assessment for Proposed Rule 317—Clean Air Act Non-attainment Fees

November 2008

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EXECUTIVE SUMMARY

A socioeconomic analysis was conducted to assess the impacts of Proposed Rule (PR) 317—Clean Air Act Non-attainment Fees. A summary of the analysis and findings is presented below.

Elements of Proposed Rule	<p>PR 317 requires that major stationary sources of volatile organic compounds (VOC) and nitrogen oxides (NOx) pay a non-attainment fee. The fee is based on actual VOC and NOx emissions exceeding 80 percent of a facility's baseline emissions in the year the area is supposed to attain the federal one-hour ozone standard. The fee would be assessed starting the year following the year the area fails to attain the federal one-hour ozone standard and continue until the facility's actual emissions are reduced to 80 percent of its baseline emissions in the attainment year or until the area attains the federal one-hour ozone standard.</p> <p>There are no direct emission reductions for which State Implementation Plan (SIP) credit is being claimed.</p>
Affected Facilities and Industries	<p>Approximately 500 major stationary facilities may be affected by the fee provisions of Proposed Rule 317. The majority of the facilities are in the manufacturing sectors (57 percent) and the utility sector (9 percent). The rest are spread over a number of sectors in the economy. Of the manufacturing sectors, printing operations and fabricated metal manufacturing have the most affected facilities.</p>
Assumptions of Analysis	<p>Of the 500 affected facilities, 499 are located in the South Coast Air Basin and the remaining one is located in the Salton Sea Air Basin (SSAB). The facility in the SSAB was assessed for the non-attainment fee from 2009 to 2012. For the remaining 499 facilities, the fee is assessed for 2012 only. The impact of the fee on the entire local economy is modeled from 2009 to 2015.</p>
Compliance Costs	<p>In 2012, it is projected that close to \$30 million will be collected from the non-attainment fee. The petroleum and coal manufacturing sector would pay the highest amount, \$6.64 million or 23 percent of the total, followed by the retail trade sector (\$4.78 million or 16 percent) and utilities (\$2.43 million or eight percent). The retail trade sector includes operations retailing automotive fuels or those in combination with activities such as repair services. The revenue from the non-attainment fee will be used on projects for emission reductions of stationary sources. Specific projects will be determined in the future. The fee is required to be paid annually until the one-hour ozone standard is attained.</p>

INTRODUCTION

PR 317 requires that major stationary sources of volatile organic compounds (VOC) and nitrogen oxides (NOx) pay a non-attainment fee. The fee is based on actual VOC and NOx emissions exceeding 80 percent of a facility's baseline emissions in the year the area is supposed to attain the federal one-hour ozone standard. The fee would be assessed starting the year following the year the area fails to attain the federal one-hour ozone standard and continue until the facility's actual emissions are reduced to 80 percent of its baseline emissions in the attainment year or until the area attains the federal one-hour ozone standard.

There are no direct emission reductions for which State Implementation Plan (SIP) credit is being claimed.

LEGISLATIVE MANDATES

The socioeconomic assessments at the AQMD have evolved over time to reflect the benefits and costs of regulations. The legal mandates directly related to the assessment of the proposed rule include the AQMD Governing Board resolutions and various sections of the California Health & Safety Code (H&SC).

AQMD Governing Board Resolutions

On March 17, 1989 the AQMD Governing Board adopted a resolution that calls for preparing an economic analysis of each proposed rule for the following elements:

- Affected Industries
- Range of Control Costs
- Cost Effectiveness
- Public Health Benefits

On October 14, 1994, the Board passed a resolution which directed staff to address whether the rules or amendments brought to the Board for adoption are in the order of cost effectiveness as defined in the AQMP. The intent was to bring forth those rules that are cost effective first.

Health & Safety Code Requirements

The state legislature adopted legislation that reinforces and expands the Governing Board resolutions for socioeconomic assessments. H&SC Sections 40440.8(a) and (b), which became effective on January 1, 1991, require that a socioeconomic analysis be prepared for any proposed rule or rule amendment that *"will significantly affect air quality or emissions limitations."* Specifically, the scope of the analysis should include:

- Type of Affected Industries
- Impact on Employment and the Economy of the district
- Range of Probable Costs, Including Those to Industries
- Emission Reduction Potential

- Necessity of Adopting, Amending or Repealing the Rule in Order to Attain State and Federal Ambient Air Quality Standards
- Availability and Cost Effectiveness of Alternatives to the Rule

PR 317 is not designed to directly affect air quality by establishing an emission limitation within the meaning of H&SC Section 40440.8. Additionally, the AQMD is required to actively consider the socioeconomic impacts of regulations and make a good faith effort to minimize adverse socioeconomic impacts. H&SC Section 40728.5, which became effective on January 1, 1992, requires the AQMD to:

- Examine the type of industries affected, including small businesses; and
- Consider socioeconomic impacts in rule adoption

H&SC Section 40920.6, which became effective on January 1, 1996, requires that incremental cost effectiveness be performed for a proposed rule or amendment setting a Best Available Retrofit Control Technology (BARCT) requirement or a “feasible measure” relating to ozone, carbon monoxide (CO), oxides of sulfur (SO_x), oxides of nitrogen (NO_x), and their precursors. Incremental cost effectiveness is defined as the difference in costs divided by the difference in emission reductions between one level of control and the next more stringent control. This statute does not apply to PR 317.

AFFECTED FACILITIES

Based on the facilities in the Title V Program and FY2006-2007 reported emissions in the Annual Emissions Reporting (AER) program, of the 585 facilities identified in the Staff Report, 500 major stationary facilities are expected to pay fees. The majority of the 500 facilities are in the manufacturing sectors (57 percent) and the utility sector (9 percent). The rest are spread over a number of sectors in the economy. Of the manufacturing sectors, printing operations and fabricated metal manufacturing have the most affected facilities.

Small Businesses

The AQMD defines a "small business" in Rule 102 as one which employs 10 or fewer persons and which earns less than \$500,000 in gross annual receipts. In addition to the AQMD's definition of a small business, the federal Small Business Administration (SBA), the federal Clean Air Act Amendments (CAAA) of 1990, and the California Department of Health Services (DHS) also provide definitions of a small business.

The SBA's definition of a small business uses the criteria of gross annual receipts (ranging from \$0.75 million to \$35.5 million), number of employees (ranging from 50 to 1,500), megawatt hours generated (4 million), or assets (\$175 million), depending on industry type (US SBA, 2008). The SBA definitions of small businesses vary by 6-digit North American Industrial Classification System (NAICS) code.

The CAAA classifies a facility as a "small business stationary source" if it: (1) employs 100 or fewer employees, (2) does not emit more than 10 tons per year of either VOC or NOx, and (3) is a small business as defined by SBA.

Dun and Bradstreet data on individual facilities was available for sales for 257 facilities and employees for 262 facilities out of 500 facilities subject to PR 317. Under the AQMD definition of a small business, there are 28 small businesses. Using the SBA definition of a small business, there are 204 small businesses.¹ Under the CAAA definition of a small business, 66 are small businesses.

COMPLIANCE COST

Of the 500 affected facilities, 499 are located in the South Coast Air Basin (SCAB) and one is located in the Salton Sea Air Basin (SSAB). The attainment year for the federal one-hour ozone standard is 2010 for the SCAB and 2007 for the SSAB. The non-attainment fee is assessed for both NOx and VOC. It is estimated by multiplying the difference between actual emissions in an assessment year and 80 percent of baseline emissions in an attainment year by \$5,000 per ton, adjusted by the California Consumer Price Index (CPI) for all urban consumers between 1990 and an assessment year. The baseline emission at a facility for an attainment year is approximated by reducing its reported emission in the FY2006-2007 AER (used as the 2006 calendar year emission) by two percent per year. The average annual emission reduction rate based on the Air Quality Management Plan (AQMP) inventory is three percent. The same method is used to approximate actual emissions in assessment years (next year following an attainment year) for each facility. CPI used for the 2011 assessment year is 1.816 (AQMD, 2008b). The fee is due the year following an assessment year. The fee is required to be paid annually until the one-hour ozone standard is attained. Affected facilities may reduce emissions in lieu of paying the non-attainment fee.

In 2012, it is projected that close to \$30 million will be collected from the non-attainment fee. The petroleum and coal manufacturing sector would pay the highest amount, \$6.64 million or 23 percent of the total fee, followed by the retail trade sector (\$4.78 million or 16 percent) and utilities (\$2.43 million or eight percent). Table 1 shows the distribution of the non-attainment fee across all the sectors and the highest and lowest payments among the facilities within each sector. The retail trade sector includes operations retailing automotive fuels or those in combination with activities such as repair services. The revenue from the non-attainment fee will be used on projects for emission reductions of stationary sources. Specific projects will be determined in the future. Because it is unknown what projects will be carried out with funds received from the fees, it is not possible to analyze the full impact on the District's economy such as employment impact.

¹ Information on megawatt hours for power generators and the value of financial assets for banking-related businesses is not available. Thus, the small business status of any facility in these two types of industries cannot be determined under the SBA or CAAA definition.

Table 1
Total Non-attainment Fee Due in 2012 (in million of 2011 dollars)

Industry	Fee	Number of Facilities	Minimum Fee within Sector	Maximum Fee within Sector
Petroleum and coal products manufacturing	\$6.64	13	\$0.0027	\$1.7590
Retail trade	\$4.78	17	\$0.0004	\$2.2462
Utilities	\$2.43	45	\$0.0004	\$0.4397
Nonmetallic mineral product manufacturing	\$1.77	17	\$0.0074	\$1.2086
Plastics and rubber products manufacturing	\$1.27	27	\$0.0033	\$0.3448
Waste management and remediation services	\$1.14	18	\$0.0045	\$0.5109
Fabricated metal product manufacturing	\$1.11	34	\$0.0008	\$0.1836
Government	\$1.03	22	\$0.0016	\$0.2130
Construction	\$0.91	12	\$0.0034	\$0.7012
Printing and related support activities	\$0.83	38	\$0.0023	\$0.0957
Oil and gas extraction	\$0.76	11	\$0.0024	\$0.2859
Chemical manufacturing	\$0.72	25	\$0.0029	\$0.1310
Primary metal manufacturing	\$0.62	13	\$0.0039	\$0.2486
Paper manufacturing	\$0.43	14	\$0.0035	\$0.2003
Pipeline transportation	\$0.43	3	\$0.0626	\$0.2131
Wholesale trade	\$0.42	22	\$0.0020	\$0.1002
Food manufacturing	\$0.41	13	\$0.0079	\$0.1400
Motor vehicle manufacturing	\$0.27	13	\$0.0020	\$0.0904
Beverage and tobacco product manufacturing	\$0.27	1	\$0.2720	\$0.2720
Transportation equipment mfg. excl. motor vehicles	\$0.27	8	\$0.0110	\$0.0596
Securities, commodity contracts, investments	\$0.26	1	\$0.2590	\$0.2590
Hospitals	\$0.22	13	\$0.0044	\$0.0444
Computer and electronic product manufacturing	\$0.20	10	\$0.0072	\$0.0688
Warehousing and storage	\$0.19	4	\$0.0102	\$0.1367
Scenic and sightseeing transportation; support activities	\$0.18	5	\$0.0148	\$0.0785
Furniture and related product manufacturing	\$0.18	21	\$0.0006	\$0.0302
Miscellaneous manufacturing	\$0.17	11	\$0.0021	\$0.0393
Support activities for mining	\$0.16	5	\$0.0006	\$0.0636
Professional and technical services	\$0.16	3	\$0.0143	\$0.0806
Machinery manufacturing	\$0.14	7	\$0.0072	\$0.0461
Wood product manufacturing	\$0.14	10	\$0.0025	\$0.0716
Membership associations and organizations	\$0.14	3	\$0.0007	\$0.0718
Truck transportation; Couriers and messengers	\$0.13	3	\$0.0186	\$0.0778
Textile mills	\$0.11	5	\$0.0122	\$0.0308
Educational services	\$0.10	6	\$0.0032	\$0.0258
Administrative and support services	\$0.07	4	\$0.0154	\$0.0257
Motion picture and sound recording industries	\$0.06	2	\$0.0244	\$0.0333
Farm	\$0.06	1	\$0.0551	\$0.0551
Repair and maintenance	\$0.05	7	\$0.0021	\$0.0206
Electrical equipment and appliance manufacturing	\$0.03	2	\$0.0068	\$0.0229
Publishing industries, except Internet	\$0.02	4	\$0.0018	\$0.0098
Accommodation	\$0.02	1	\$0.0188	\$0.0188
Textile product mills	\$0.02	1	\$0.0156	\$0.0156
Personal and laundry services	\$0.01	2	\$0.0025	\$0.0111
Food services and drinking places	\$0.01	1	\$0.0132	\$0.0132
Ambulatory health care services	\$0.01	1	\$0.0073	\$0.0073
Amusement, gambling, and recreation	\$0.01	1	\$0.0057	\$0.0057
Total	\$29.35	500		

REFERENCES

South Coast Air Quality Management District (AQMD). Proposed Rule 317—Clean Air Act Non-attainment Fees. November 2008a.

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